The RECORD

Where Does the Money Go?

see page 5

THE SOCIETY OF THE NEW YORK HOSPITAL / 1970

Contents

3 Blood Component Therapy
5 Where Does the Money Go?
8 Diagnostic Nursery School
10 Heart Station

THE RECORD of The Society of the New York Hospital is published annually in September to provide its friends and contributors with current information about the activities of The New York Hospital-Cornell Medical Center.

Blood Component Therapy

Helps Many Illnesses

A MAN OF FORTY, suffering from a liver disease, receives a transfusion that will prolong his life.

A teen-age girl is given a transfusion to help combat her anemia.

A boy of ten is in the Hospital for surgery. Since he has hemophilia, the bleeding disease, he is given a transfusion to enable him to go through surgery with safety.

A young woman with leukemia is given a transfusion. With such transfusions and necessary medication, her disease can be kept in check.

The thread that ties these scenes together is the fact that all four transfusions were produced from just one pint, or unit, of blood. All four were made possible by one contribution to the Blood Bank.

Today the art of medicine has progressed far beyond the transfusion of whole blood. In The New York Hospital Blood Bank, directed by Miss Jane Haber, the art of "component therapy," giving a patient only the element of blood he needs, has reached a high scientific level. Today transfusions can be tailored to the requirement of each patient.

The patient with liver disease was given fresh frozen plasma. The patient with anemia received packed red cells, cells her own body could not produce. Packed cells are also used for patients with kidney transplants and those using the artificial kidney machine.

Hemophilia patients are aided by an element of the blood called cryoprecipitate which enables blood to clot. For treatment of leukemia another blood element is used, called platelets. Platelets are also used to halt acute bleeding. The advantage of platelets as a transfusion consists partly in the fact that this element constitutes only 1/50th of blood volume. Patients can receive the benefit of many units of platelets without having to absorb the large amount of fluid that whole blood transfusions would require for the same effect.

These are by no means the only specialized transfusions which The New York Hospital Blood Bank makes available to patients. Plasma protein solution is used primarily for shock and burns; it adds to the volume of fluid in the body. Factor VIII Concentrate is an improved means of producing clotting and is a boon to hemophiliacs. A similar product

Blood Bank technician prepares to cross-match patient's blood sample with unit for transfusion.

is called Factor IX Concentrate and is used to alleviate other bleeding conditions. Fibrinogen is a boon to maternal patients who have bleeding problems after delivery, because of a shortage of fibrin in their blood.

Whole fresh blood, Miss Haber points out, is still the first choice for the use of patients during surgery. In open heart operations, which use machines for coronary by-pass, a minimum of ten pints are needed.

The art of blood transfusion was developed early in this century and came into wide use in the treatment of casualties in the First World War. The first blood component to be developed, blood plasma, saved many lives in the Second World War.

Blood transfusions and blood component therapy today play an ever growing role in the care of the sick. Miss Haber reports that in 1969 the Blood Bank of The New York Hospital had the busiest year in its entire history. Especially in the field of blood components, the number of units issued increased dramatically over the short span of three years. From 1966 to 1969, the units of platelets dispensed rose from 1,331 to 4,793, of cryoprecipitate from 993 to 3,363, and of plasma from 2,016 to 6,600. Each of these procedures meant that somewhere in the Hospital a patient was being helped back to health.

To make a blood donation is harmless to health and takes only an hour of a person's time. Some place, somewhere, someone's life may be saved by this generous act.

Facts and Figures Behind the Rise in Our Hospital Costs

Where Does the Money Go?

THE INCREASED cost of hospital care is a matter of deep concern to the general public and of vital concern to those of us who live and work to provide this essential community service.

We very much want our patients and our friends to know what has happened to bring this about and what counter-measures we are taking. We want to take you behind the scenes and share with you our problems, our struggles to solve them and our hopes for the future.

Please remember this: The New York Hospital is a non-profit institution. There are no profits, no dividends. Every cent received goes back into the Hospital's maintenance and operation. We have no surpluses. In spite of the large amounts we are forced to charge our patients, we still are far from able to meet our expenses. As a matter of fact, projected figures for 1970 show that we face an operating deficit in the millions. Where does the money go?

Everyone's Problem: Inflation

The New York Hospital, like every other enterprise, has suffered from the inflationary spiral. Every product the Hospital must buy has risen in cost. So has the cost of building maintenance and the construction necessary to replace outworn facilities. Our dollar in 1970 does not buy as much as it did ten years ago or even five years ago.

But the cost of hospital care has risen even faster than the general rise in the cost of living. Let us look

Dr. David D. Thompson,
Director, The New York Hospital

for the reason.

Our Biggest Cost: Manpower

The New York Hospital, like other hospitals, is essentially people caring for people. Unlike industry, we don't turn out a "product"; instead, we are engaged in providing service.

Even though we use many machines, many of them complicated and expensive, these machines still require people to operate them.

Two-thirds of the total annual expenditure of the Hospital is for wages and salaries. Therefore any increase in this sector of our budget has profound effects on the total.

More Employees Needed per Patient

Today it requires more personnel to care for our patients than was true in former years.

Contrasting figures for the last ten years illustrate this trend. The number of X-ray examinations increased one and a half times; bacteriological tests almost doubled; chemical laboratory tests almost tripled; and tests using radioisotopes increased by more than four times. This volume of activity requires highly expensive equipment and larger work areas. It also requires hiring more employees.

In 1950, The New York Hospital employed a staff equivalent to 244 employees per 100 patients.

In 1960, the figure rose to 255 employees per 100 patients, an increase of 4.5 per cent.

Between 1960 and 1970 the figure escalated. Today we must employ 360 staff members to care for 100 patients. This is an increase of 41 per cent in just ten years.

More Trained Staff Members Needed

In large part, these additional employees have had to be people with technical training. As medical care becomes more scientific, more skilled hands and educated brains are needed in the Hospital.

This refers not only to laboratory workers and other technicians. The list includes dieticians, physical therapists, speech therapists, social workers, data processors and a host of other professionals.

The need for this technical assistance has increased our wage and salary bill.

Fair Wages for Hospital Staff

For many generations a condition

existed of which the general public was not aware. This was the fact that hospital employees were close to the bottom of the national wage scale. This situation had to be corrected, not only because it was inequitable, but also because the time came when hospitals had to compete for personnel in the open market place.

As recently as 20 years ago, the average hospital worker in the United States earned less than a third as much as his counterpart in private industry ($1200 a year as against $3900).

Today, the minimum wage for a permanent employee in The New York Hospital is $120 a week, plus fringe benefits estimated at 25 per cent.

Salaries in the nursing profession were so low as to lead to a critical shortage in this vital health care area. In 1955, nurses' pay started at $1.40 per hour; in 1959 it had risen to only $75 per week.

Today, in The New York Hospital, the salary for staff nurses starts at $180 a week and ranges up to $230 for those in executive positions.

In 1963 an intern at The New York Hospital received a stipend of $2,700 per year. Today the figure is $10,500 and the range goes upward to $13,700 for a resident with seven years of experience.

The number of doctors on the House staff was 162 in 1952; today it is 312. This means better hospital care but it obviousy means a lot more money.

It Adds Up to Sky-Rocketing Costs

These then are the basic elements raising our total labor and salary costs, which make up two-thirds of our total expenditures. They are: 1) the need for more employees; 2) the need for more highly trained employees; and 3) the need to raise wages and salaries to a competitive level with those in other fields.

As a result, the annual wage and salary bill paid by The New York Hospital over the past decade has doubled.

We Practice a New Kind of Medicine

Many people look back to the good old days when the family doctor drove his horse and buggy up to

(continued on page 13)

Emergency Unit is always prepared.

Diagnostic Nursery School

STEVIE is a handsome little boy. His parents found him easy to care for and were pleased that he enjoyed playing by himself. They scarcely noticed that, though he was over three years old, he seldom talked. Then he went to nursery school.

All at once, Stevie's problems showed up clearly. He was unable to communicate effectively with the teacher or the other children. He didn't react or relate to things said to him, even to being touched. His solitary play was repetitive and compulsive. At times he would clench his fists and be shaken by a violent tremor.

What might have happened to Stevie? He obviously could not benefit from school. He might have been labeled as psychotic or mentally retarded. He might very well have ended up in an institution. But good fortune led him to the Diagnostic Nursery.

This new facility at the Payne Whitney Psychiatric Clinic was established last Spring by Dr. Bertrand New, head of Child and Adolescent Psychiatry at the Clinic. A pilot project, the Nursery employs many new concepts in helping "uneducable" children.

There the staff discovered that under Stevie's apparent calm he was irritable and fearful. He had a very poor tolerance to noise and outside stimulation. If people became too insistent, he withdrew, "tuned out," and literally did not hear them speak. As a result of not hearing, he did not learn to talk himself.

The Nursery teachers worked carefully and gently with him, gradually drawing him into group activities. They encouraged him to express himself verbally and to give vent to his emotions. His parents gained new insight into Stevie's problems and encouraged him to talk at home.

Stevie's situation had been complicated by the fact that his family was bilingual. Though English had been used in his nursery school, they had used the second language at home, hoping he would become fluent in both. They willingly dropped this ambitious project and spoke to him only in English.

Because Stevie has his share of natural intellectual endowment, once he began on the right path he learned quickly. He is now talking at a level consistent with his age. He is gaining assurance in associating with other children and adults. Tests show that he is quite bright, and plans are be-

Sets Youngsters on New Path

ing made for him to continue schooling.

The Diagnostic Nursery operates to help children aged two to five who are unable to participate in conventional nursery school activities or head start programs. Most have problems in communication or behavior patterns which interfere with learning. Since these problems rule out the usual testing procedures, careful study of the children at the nursery school is used instead.

Diagnosis is by no means the sole purpose of the nursery. The main endeavor is to intervene in the process that is blocking the child's normal development and to start him on a new, constructive path. Before a child "graduates" a careful plan is made for his future education and for entry into the facility best suited to his needs.

The children are organized into two classes, one meeting two mornings a week, the other for three. Each class consists of five children and two teachers. The children are given educational experience within their capacities but in addition, they are closely observed in their interactions with other children and with adults, at "work" and at play. This gives valuable clues to the origin of their behavior.

The program has the indispensable assistance of the children's parents. One morning a week, the mothers meet as a group in an adjoining room where they may observe the children if they wish. Through these meetings, guided by a psychiatric social worker, mothers gain new insight into their child's problems which often leads to a modification in their way of handling them.

The Director of the Nursery is Mrs. Elizabeth Balliett, a specialist in child education. Mrs. Elaine Heffner, a psychiatric social worker, is Associate Director. Dr. New, the Medical Director, is an Associate Attending Psychiatrist of The New York Hospital and Clinical Associate Professor of Psychiatry in Cornell University Medical College. Working alongside them is a research team from Cornell University which is studying the development of language and communication skills.

Dr. New and his associates believe that Stevie will soon be able to enter a regular school and advance his education like other youngsters. Although there still may be some obstacles in Stevie's path, they take satisfaction in the fact that he has started in the right direction.

Heart Station

FROM 3,000 to 35,000 is a big step. That step was taken by the Heart Station of The New York Hospital. This is the comparison between the number of electrocardiograms recorded in 1946 and in 1969.

Great changes have taken place since the late twenties and early thirties when electrocardiography became widely used for the diagnosis of cardiac diseases. Due to the foresight of Dr. Harold J. Stewart, former Head of the Division of Cardiology at The New York Hospital, the present building, constructed in 1932, was wired so that wall outlets on most floors were connected to a panel in the Heart Station. This wiring made it possible for electrocardiograms to be taken on patients in their beds in any part of the Hospital.

Changes in the method of recording electrocardiograms have enabled us to make the great jump in the number taken and shorten the time it takes to record one. 198 steps had to be taken to record and process one electrocardiogram in 1947; 16 steps had to be taken in 1963; and only 9 steps taken in 1967. Since 1961, when Dr. Thomas Killip was appointed Director of Cardiology, there has been a 75% increase in the volume of electrocardiograms recorded in the Heart Station with a slight increase in the number of staff. Overtime work has practically been eliminated. Sufficient time has been saved so that the technicians now perform other graphic tests such as phonocardiograms (records of heart sounds), and vectorcardiograms.

There have been several changes in the equipment used since the original string galvanometer. In the fall of 1967 the method was changed so that electrocardiograms taken at

String galvanometer has been replaced by modern equipment.

the patient's bedside were recorded on microfilm at the Heart Station. Two further changes were made in 1969; one, the use of the telephone system to transmit the electrocardiogram signal and the second, the automatic tape recording of the record for either microfilming, storage, or eventually computer input.

When a patient is admitted to the Hospital a technician takes one of the five transmitter carts to the patient's bedside. Twelve electrodes are attached to the patient. A cord from the cart is plugged into an electrical outlet and a telephone line is plugged into a telephone jack in the patient's room, thus enabling the technician to call the Heart Station from the telephone on the cart. First, she dials the receiving console in the Heart Station. The receiving console does not reply if it is already in use but a signal flashes on the transmitting cart when the console is ready to receive. The technician then dials the electrocardiogram identification number which is recorded by the receiver. The machine automatically gives another signal when it starts to record all 12 leads continuously, three leads simultaneously. The whole recording takes exactly ten seconds!

The recording is made simultaneously on microfilm and on magnetic tape in the Heart Station and a copy is registered on the bedside chart for the doctor's immediate attention if necessary. In the Heart Station the microfilm is put into a Xerox machine which makes an enlarged copy for the doctor to read and the original microfilm is put in the patient's file. Previous records of the patient are kept at the Heart Station so that the doctor can compare the new record with the old ones.

This same method is used for Out-

Technician at transmitting cart.

Patients as well. They come to the Heart Station and relax on a bed while the electrodes are attached and the electrocardiogram taken.

The technicians have become so proficient at reading electrocardiograms that frequently they notice abnormalities while taking tests on patients who have come for a routine check. The patient may not realize that he is having an attack or acute changes or abnormal rhythms. These patients are evaluated by a physician and if necessary admitted immediately for care at a most crucial time.

The technicians are also an important part of the Cardiac Arrest Team. When alerted, they rush a defibrillator with all equipment and drugs to the bedside of the patient who needs it. They are called to all parts of the Hospital.

The Heart Station also has two electrocardiographic recording machines small enough for a patient to carry around with him; these can take an electrocardiogram continuously for up to ten hours. One type has a tape cartridge, operated by a mercury battery, that writes for two minutes and then erases. If any arrythmia (abnormal rhythm) occurs,

it will be documented for one minute before the episode and one minute during the episode; then an alarm sounds so that the patient knows that the tape has stopped and he can remove the recorder. If at any time a patient feels that he is not well he can trigger the machine manually. The second type of machine, which tapes the electrocardiogram continuously is used to record changes in heart rate and rhythm during normal activity of the patient.

The Heart Station of The New York Hospital is a place where technical proficiency and the most up-to-date equipment combine to help both in diagnosis and in the saving of lives.

Where Does the Money Go? (continued from page 7)

the house and hurried in with the little black bag that was his trademark. Those were days of low medical costs. The doctor's concern was real, but unfortunately, too often his little black bag contained nothing that would really help his patient.

There has been an explosion of new medical knowledge, new medical techniques. Most of them can be used only in a hospital. Most of them are expensive, but they save lives that were formerly lost.

As a result of medical advances, today's physician is treating different illnesses than was the case a generation ago. The development of vaccines has practically wiped out such old-time killers as polio, diphtheria, cholera, scarlet fever, small pox, typhus and mastoiditis. Hospital rooms are no longer crowded with patients suffering from tuberculosis because of new ways of controlling this disease. Many illnesses characterized by infection have yielded to treatment by antibiotics, lessening their danger and decreasing the need for hospitalization.

Does this mean that hospital beds are now empty? Not at all. It means that we can turn our energies and our resources to the care of patients whose situation would have been considered hopeless a short time ago. The difficulty is that this kind of medicine costs far more than putting the patient to bed and giving him an aspirin, or even putting him to bed and giving him sulfa.

Our new Cardiac Care Unit cost $400,000 to build and equip and to care for a patient there costs $200 a day. Few of those whose lives it has saved would say it is not worth the cost.

The cost of a kidney transplant operation is in the neighborhood of $25,000; the cost of maintaining a patient on kidney dialysis is formidable. Yet for these patients it is the only way out. Does it cost too much?

In the case of a patient with a suspected tumor, our physicians take X-rays with a nuclear camera that enables them to see precisely if a tumor exists, and if so its exact size and location, so that the surgeon may treat it. The camera cost $50,000. Is it too expensive?

We have come a long way from horse-and-buggy medicine. Modern medicine enables us to save more lives, but it has a high price tag.

What We Can Do

The New York Hospital is making intensified efforts to streamline its operation and lower its costs. For this purpose it has consulted outstanding experts in the field of management counselling.

What we have done is to introduce automation into many areas, such as the processing of laboratory tests. We are investing heavily in labor-saving equipment in the kitchens and laundry. We are applying techniques of scientific management to the handling and flow of supplies and records. We have embarked on a program for the use of computers to lighten the clerical load. At present we are making an intensive study to develop the most efficient design for patient care units, with a view to eliminating lost motion and duplication of effort.

We believe that we are making headway. However, every installation, made for the purpose of cutting costs, itself requires a capital expenditure which is often beyond our means. We can only go forward as our means allow.

What We Can't Do

We can never, by the nature of our work, model our procedures on those of private industry. No matter how many machines we install, hospital care will still depend upon people.

An electronic monitoring device can give early warning that a heart patient is in difficulty. But it takes people, physicians, nurses and other specialists, to avert the crisis and save the patient's life.

We can speed up the taking and processing of X-rays, but it takes the trained eye of the physician to read the X-ray and translate what he reads into a program for relief of the patient's condition.

Every patient is "special" at The New York Hospital. Our patients are not on an assembly line; we do not practice push-button medicine.

The Difference Between Saving Lives and Saving Dollars

Many of the standard practices used by private industry and commercial services to reduce unit costs cannot be used in a hospital. Here are some of them:

Control of work volume. It is standard practice to equalize the work load and so control the flow of production as to gain maximum use of plant, machinery and staff. We must work within limitations because we must work around the clock, 365 days a year, with the added expense

that this entails. We must be continuously staffed, for any conceivable emergency. We cannot insist that mothers have their babies only between 9 and 5, or that heart attacks occur only during slack periods.

Limiting services offered. Many commercial firms have strengthened their financial position by dropping non-profitable services and products and limiting themselves to those which yield a satisfactory return. We cannot do this. We cannot discontinue open heart surgery, in order to reduce our operating deficit. We must care for our patients without regard to the cost involved.

Selection of market. Some commercial firms have cut costs by limiting their services to customers of a particular economic or other grouping and supplying only their needs. We cannot do this. Our patients are treated regardless of their age, race, religion, origin or financial standing. We are here to serve humanity.

While we are making intensive efforts to streamline procedures and cut costs, the goals and purposes of the Hospital prevent us from applying many of the standard devices of private industry and commercial services.

It is impossible, morally, for us to downgrade the level of care we give our patients. We care more for saving lives than saving dollars. We worry about the money later.

It is a big worry, and we are mobilizing all our energies to cope with the problem. Meanwhile, we ask for your understanding and financial support, and urge you to endorse governmental and social policies which will bring the highest standard of health care to all our citizens, at a cost within their means.

THE NEW YORK HOSPITAL

The Hospital, founded in 1771, is the oldest in the City and the second oldest in the nation.

It is a private, voluntary, non-profit institution with four goals: patient care, education, research and advancement of preventive medicine.

1160 Beds
1200 Doctors
900 Nurses
4200 in personnel
110,000 patients per year
32,717 Hospital admissions
239,700 Clinic visits
34,290 Emergency visits

Breakdown of Patient Cost

51 per cent: Medical service, including laboratory procedures, X-rays, pharmacy and salaries of House physicians.

28 per cent: Nursing service.

14 per cent: Room cost, including utilities, housekeeping, building maintenance and business office.

7 per cent: Meals, including over 200 special diets when prescribed.

THE SOCIETY OF THE NEW YORK HOSPITAL

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